COAXIAL HIGH POWER

Termination

TERM-50W-183S+

50Ω 50W DC to 18 GHz SMA Male

THE BIG DEAL

- Ultra-Wideband Operation, DC to 18 GHz
- Input Power Handling, 50W
- Excellent Return Loss, 26 dB Typ. up to 18 GHz

Generic photo used for illustration purposes only

Model No.	TERM-50W-183S+
Case Style	LL2798-3
Connectors	SMA Male

+RoHS Compliant
The +Suffix identifies RoHS Compliance.
See our website for methodologies and qualifications

APPLICATIONS

- Cellular Communications
- Satellite Communications
- Test set-up
- Defense and Radar

PRODUCT OVERVIEW

Mini-Circuits' TERM-50W-183S+ is an ultra-wideband 50Ω high power termination capable of absorbing signals up to 50W from DC to 18 GHz. It provides excellent return loss across its entire operating frequency range, effectively dissipating signal power with minimal reflections. This model has SMA male connectors, allowing connections with SMA female connectors. The unit features rugged construction for a long life of use and comes in passivated stainless steel connector with black anodized aluminum housing.

KEY FEATURES

Features	Advantages
Wideband, DC to 18 GHz	Extremely wide frequency range provides application flexibility and makes this model ideal for broadband and multi-band use.
Good Return Loss: • 26 dB typ. up to 18 GHz	Good return loss minimizes signal reflections across multiple-decade frequency range
Power Handling up to 50W	Meets a wide range of system power requirements.
Wide operating temperature range, -55 to +100˚C	Withstands tough operating conditions and is suitable for use near high power componentry where heat rise is common.

ELECTRICAL SPECIFICATIONS AT 25°C

Parameter	Condition (GHz)	Min.	Typ.	Max.	Units
Frequency Range	-	DC	-	18	GHz
Return Loss	DC - 6	19.1	35	-	dB
	6 - 12.4	16.5	28	-	
	12.4 - 18	14.7	26	-	
Input Power[1]	DC - 18	-	-	50	W

1. At 25°C, derate linearly to 20W at 100°C.

ABSOLUTE MAXIMUM RATINGS[2]

Parameter	Ratings
Operating Temperature	-55 °C to +100 °C
Storage Temperature	-55 °C to +100 °C

2. Permanent damage may occur if any of these limits are exceeded.

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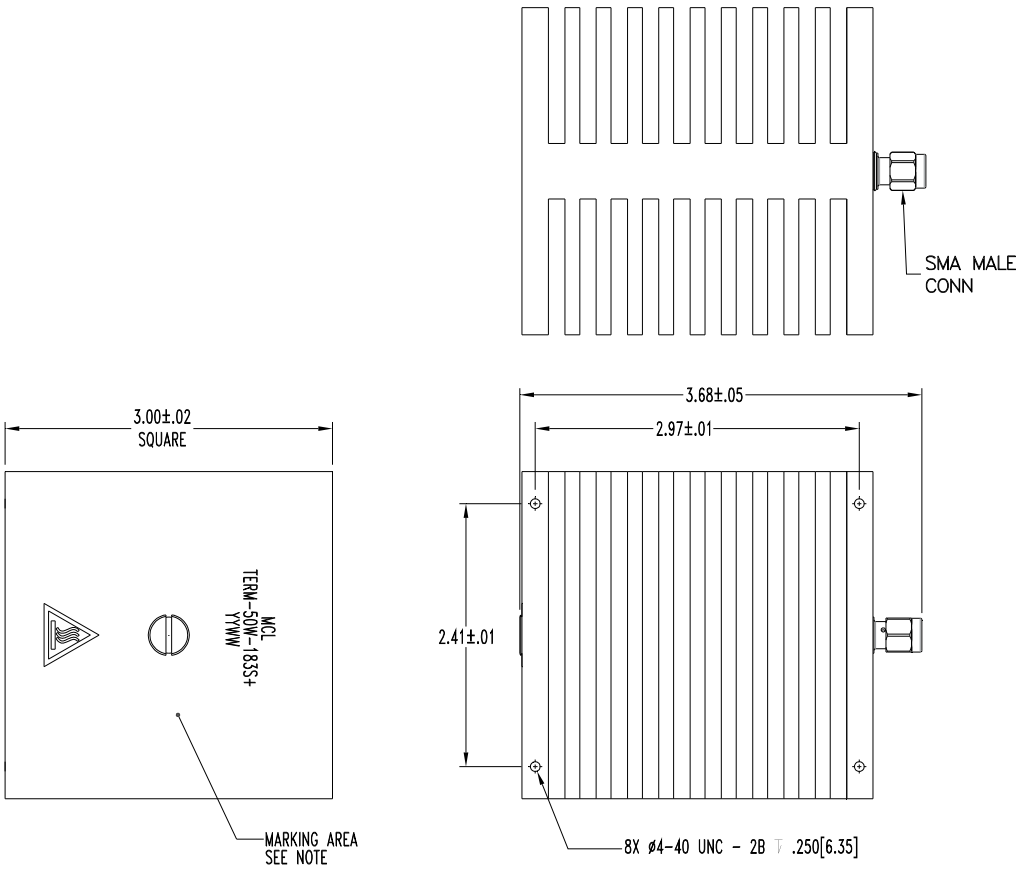
COAXIAL CONNECTIONS

Input	SMA Male

OUTLINE DRAWING



Weight: 862 grams (max.)

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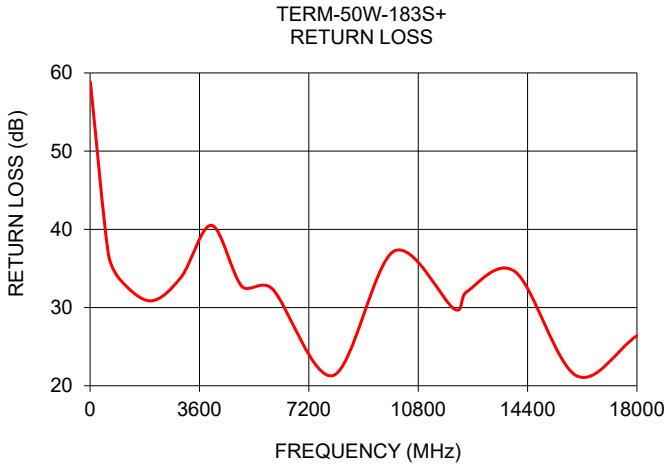
TYPICAL PERFORMANCE DATA / GRAPHS

Frequency (MHz)	Return Loss (dB)
10	58.83
600	36.92
1000	33.51
2000	30.85
3000	33.90
4000	40.51
5000	32.70
6000	32.38
8000	21.31
10000	37.20
12000	29.78
12400	32.02
14000	34.56
16000	21.29
18000	26.40



NOTES

A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the standard terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/terms/viewterm.html

High Power

Termination 50Ω, SMA-Male TERM-50W-183S+

Typical Performance Data

FREQUENCY (MHz)	RETURN LOSS (dB)
10	58.83
20	56.84
30	55.11
40	53.63
50	52.07
60	51.49
70	50.63
80	49.84
90	49.12
100	48.53
200	44.08
300	41.44
400	39.57
500	38.12
600	36.92
700	35.89
800	34.99
900	34.20
1000	33.51
1500	31.35
2000	30.85
2500	31.72
3000	33.90
3500	38.17
4000	40.51
4500	34.71
5000	32.70
5500	34.61
6000	32.38
6500	26.64
7000	23.41
7500	21.77
8000	21.31
8500	22.39
9000	25.87
9500	34.04
10000	37.20
10500	28.78
11000	26.06
11500	26.62
12000	29.78
12500	32.33
13000	35.56
13500	49.00
14000	34.56
14500	36.68
15000	36.38
15500	25.09
16000	21.29
16500	20.90
17000	24.23
17500	40.33
18000	26.40

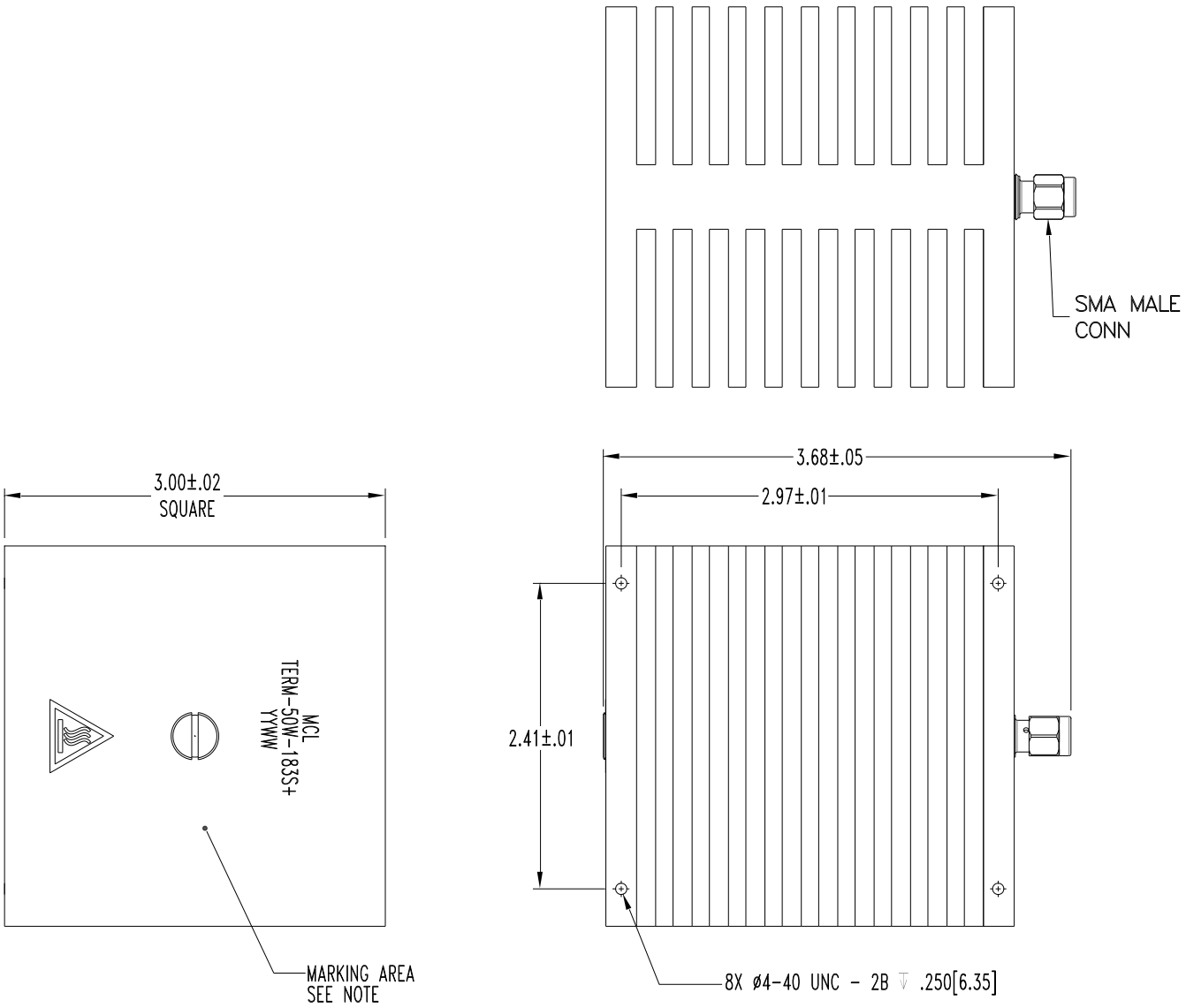
Termination 50Ω, SMA-Male TERM-50W-183S+

Typical Performance Curves

Case Style LL

Outline Dimensions

LL2798-3



Weight: 862 grams

Dimensions are in inches (mm). Tolerances: 2Pl. ± .03; 3Pl. ± .010

Notes:

1. Case Material: Aluminum alloy.
2. Case Finish: Black anodize.

Mini-Circuits

Environmental Specifications **ENV106**

All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-55° to 100° C or -55° to 85° C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Thermal Shock	-55° to 100°C, 5 cycles	MIL-STD-202, Method 107, conditionB-3,except over -55° to 100°C
Connector Durability	500 mating/unmating cycles	MIL-PRF-39012E, PARAGRAPH 4.6.12